

Application no. 10/068,710  
Amdt. dated March 2, 2004  
Reply to Office Action of December 2, 2003

### Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

**CLAIM 1 (currently amended):** A data communication node ~~forwarding inbound packets, the node comprising:~~

an access controller ~~adapted to: receive receiving~~ an inbound packet and packet, classify classifying the packet wherein a first set of classification information is generated, and the access controller determining whether the packet is to be admitted admit the packet classified by the access controller into the node ~~or not based on congestion status data determined from the first set of~~ classification information; and

a switching controller coupled to the access controller, wherein the switching controller is adapted to: receive receiving the admitted inbound packet from the access controller controller, for further classifying the admitted packet wherein a second set of classification information is generated, and the packet, the switching controller determining whether the packet is to be forwarded forward the packet classified by the switching controller to a destination address ~~or not based on additional congestion status data determined from additional the second set of~~ classification information.

**CLAIM 2 (original):** The data communication node of claim 1, wherein the access controller is a media access controller.

**CLAIM 3 (currently amended):** The data communication node of claim 1, wherein the first set of classification information includes a priority associated with the inbound packet.

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**CLAIM 4 (original):** The data communication node of claim 3, wherein the access controller gives precedence in admitting packets associated with a first priority over packets associated with a second priority.

**CLAIM 5 (original):** The data communication node of claim 1, wherein the access controller includes a buffer storing admitted inbound packets.

**CLAIM 6 (currently ~~amended~~):** The data communication node of claim 5, wherein the congestion status data includes a buffer utilization level, the access controller admitting the inbound packet if the utilization [[10]] level is lower than a predetermined threshold level.

**CLAIM 7 (original):** The data communication node of claim 5, wherein the congestion status data includes a buffer utilization level, the access controller discarding the inbound packet if the utilization level is higher than a predetermined threshold level.

**CLAIM 8 (currently ~~amended~~):** The data communication node of claim 1, wherein the access controller discards the inbound packet based on a discard probability that varies based on the first set of classification information.

**CLAIM 9 (currently ~~amended~~):** An access controller in a data communication node comprising:

- an input receiving an inbound packet;
- a classification engine coupled to the input classifying the inbound packet,  
wherein classification information is generated;
- a buffer storing admitted inbound packets; and
- a disposition engine coupled to the classification engine and the buffer, wherein  
the disposition engine is adapted to receive ~~receiving~~ the classification

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information, determine information and determining whether the inbound packet is to be admitted or not based on a utilization level of the buffer determined from the classification information, and deliver the disposition engine delivering the inbound packet to a switching controller if the packet is admitted.

**CLAIM 10 (original):** The access controller of claim 9, wherein the classification information includes a priority associated with the inbound packet.

**CLAIM 11 (original):** The access controller of claim 10, wherein the disposition engine gives precedence in admitting packets associated with a first priority over packets associated with a second priority.

**CLAIM 12 (original):** The access controller of claim 9, wherein the disposition engine admits the inbound packet if the utilization level of the buffer is lower than a predetermined threshold level.

**CLAIM 13 (original):** The access controller of claim 9, wherein the disposition engine discards the inbound packet if the utilization level of the buffer is higher than a predetermined threshold level.

**CLAIM 14 (original):** The access controller of claim 9, wherein the disposition engine discards the inbound packet based on a discard probability that varies based on the classification information.

**CLAIM 15 (currently amended):** A method for packet traffic management in a data communication node including an access controller and a switching controller, the method comprising:

at the access controller:

receiving an inbound packet;

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classifying the inbound packet, wherein classification information is generated;  
determining congestion status data from the classification information;  
admitting the inbound packet ~~or not~~ based on the congestion status data;  
and  
delivering the admitted inbound packet to the switching controller ~~if the packet is admitted~~; and  
at the switching controller, determining whether the admitted packet is to be forwarded to a destination address.

**CLAIM 16 (original):** The method of claim 15, wherein the access controller is a media access controller.

**CLAIM 17 (original):** The method of claim 15, wherein the classification information includes a priority associated with the inbound packet.

**CLAIM 18 (original):** The method of claim 17, wherein the admitting the inbound packet further comprises giving precedence to packets associated with a first priority over packets associated with a second priority.

**CLAIM 19 (original):** The method of claim 17 further comprising storing the inbound packet in a packet buffer associated with the access controller if the packet is admitted.

**CLAIM 20 (original):** The method of claim 19, wherein the determining of the congestion status data comprises determining a utilization level of the packet buffer.

**CLAIM 21 (original):** The method of claim 20, wherein the admitting of the inbound packet comprises admitting the inbound packet if the utilization level of the packet buffer is lower than a predetermined threshold level.

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**CLAIM 22 (original):** The method of claim 20 further comprising discarding the inbound packet if the utilization level of the packet buffer is higher than a predetermined threshold level.

**CLAIM 23 (original):** The method of claim 20 further comprising discarding the inbound packet based on a discard probability that varies based on the classification information.

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augments the classification that may be performed at the switching controller to which it is serially coupled.

In contrast to the present invention, Kilkki and Rom each disclose individual switches for filtering and buffering packets. The switches in Kilkki and the switches in Rom appear to perform the same function and may even be equivalent. If the switches in Kilkki and Rom were combined, therefore, one skilled in the art would use the switch from Kilkki or the switch from Rom, but not both. There is no suggestion in the art to combine both a switch from Kilkki with a switch from Rom, nor a suggestion to combine them serially.

#### D. CLAIM 1, 9, & 15 AMENDMENTS

Independent claims 1, 9, and 15 have been amended to further clarify and broaden the invention in its several embodiments and better present the invention for examination. The amendments are, however, unrelated to the prior art and were not made for reasons related to patentability.

#### E. CLAIM 6 AMENDMENT

Dependent claim 6 has been amended to further clarify the particular embodiment of the invention and remove the "10" which Applicant presumes is a scanning artifact present in the published patent application no. 20030016625. The amendment is, however, is unrelated to the prior art and was not made for reasons related to patentability.

#### F. CONCLUSION

For all the forgoing reasons, Applicant submits that the present invention is patently distinguishable from Kilkki and Rom either alone or in combination. Accordingly, Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Should there be any fees for this action, your office is authorized to draw from the firm deposit account number 02-3979. Should you have any questions, or identify any

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problem, I would appreciate a telephone call so that this matter may be resolved promptly.

Respectfully submitted,

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